

Name: \_\_\_\_\_

**at1121exam\_practice: Radicals and Squares (v2)**

**Question 1**

Simplify the radical expressions.

$$\sqrt{12}$$

$$\sqrt{50}$$

$$\sqrt{75}$$

**Question 2**

Find all solutions to the equation below:

$$10 \left( (x + 8)^2 - 7 \right) = 90$$

**Question 3**

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 + 18x = -56$$

**Question 4**

A quadratic polynomial function is shown below in standard form.

$$y = 4x^2 + 24x + 27$$

Express the function in **vertex form** and identify the **location** of the vertex.